


PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 76.0868 WO	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/IB2004/002345	International filing date (day/month/year) 12.07.2004	Priority date (day/month/year) 23.07.2003	
International Patent Classification (IPC) or national classification and IPC H04N7/167			
Applicant AXALTO SA et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p style="margin-left: 20px;">a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p style="margin-left: 20px;">b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty; inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 10.12.2004		Date of completion of this report 06.07.2005	
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Telephone No. +49 89 2399- 2136 SCHÖYER	



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

10/565567
IAP20 Rec'd PCT/PTO 28 JAN 2006
International application No.
PCT/IB2004/002345

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
☐ publication of the international application (under Rule 12.4)
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-9 as originally filed

Claims, Numbers

1-10 as originally filed

Drawings, Sheets

1/2-2/2 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
☐ the claims, Nos.
☐ the drawings, sheets/figs
☐ the sequence listing (*specify*):
☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
☐ the claims, Nos.
☐ the drawings, sheets/figs
☐ the sequence listing (*specify*):
☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/B2004/002345

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-7,10
	No: Claims	1,9
Inventive step (IS)	Yes: Claims	
	No: Claims	2-7,10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

PCT/IB2004/002345

Re Item V.

Prior art:

The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: WO-A-0247356
D2: EP-A-1263230
D3: US-A1-2002048367

Novelty:

The present application does not meet the requirements of Article 33(1) PCT, because the subject-matter of present independent claim 1 and 9 is not new in the sense of Article 33(2) PCT.

Document D1 discloses a method and a system for monitoring the usage of a service by a communication device coupled to a tamper resistant module, comprising:

- a plurality of encrypted data flows
- successive decryption steps of the data flow by a first key, encrypted in the data flow and decrypted in the tamper resistant module (see D1 p. 9 l.17-21) by a second key, stored or derived in the tamper resistant module (see D1, p. 3, l.16-29; page 4, line 31 to page 7 line 19).

The method and system disclosed in D1 comprise a counting step to count the number of times the encryption key is decrypted and the amount of data flow, which has been decrypted (see D1, p. 8, l. 12-20).

The subject-matter of independent claim 9, referring to a module related to the method in independent claim 1 is also not new for the same reasons as set out above for independent claim 1.

Inventive step:

The present application does not meet the requirements of Article 33(1) PCT, because the subject-matter of independent claim 10 and of dependent claims 2-8 does not involve an inventive step in the sense of Article 33(3) PCT.

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/IB2004/002345

Claim 10:

The subject matter of independent claim 10 does not involve an inventive step, as it is obvious to a person skilled in the art that a computer program can be used to perform the counting step of the method defined in the subject-matter of independent claim 1.

Claim 2:

The subject-matter of claim 2, related to the storing of a predetermined fixed number in the tamper resistant module, the incrementation of a counter and the comparison of the counter number with a predetermined fixed number, is not inventive as in D1 p. 8, l. 12-20, it is disclosed a similar system, where the counter is decremented and compared to zero. Therefore the subject matter of dependent claim 2 is obvious for a person skilled in the art, aware of the description of D1 p. 8, l.12-20.

Claim 3:

The person skilled in the art, aware of D1, will also be aware of D3, p. 4, paragraph 58 and 59, where it is described a method including a command sent to the tamper resistant module for the renewing of the key.

Claim 4:

A method for updating, resetting the counter is described in D2 (col. 9, l.40 - col.10, l.11; D2 col. 15 l. 46- col. 16, l. 19)

Claim 5:

The command of dependent claim 3 and 4 is encrypted by a third key known in the tamper resistant module. This is described in D3 p. 3 paragraph 38 and page 4 paragraph 58-59 and also D2 col. 10, l.6-11.

Claim 6:

The subject matter of dependent claim 6 is also obvious, as it is obvious that the action undertaken after the comparison of the counter, is the completion of decryption steps.

Claim 7:

A periodical update of the first key is described in D3, page 4, paragraph 58.

Claim 8:

The subject matter of dependent claim 8 is obvious to a person skilled in the art, as it is obvious that commands are transmitted to the tamper resistant module and that there is

a program for authorising the transmission that does not necessarily read the content.

Article 33(4) PCT: the subject-matter of claims 1-10 is considered to be industrially applicable.

Re Item Part VII.

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1-D3 are not mentioned in the description.

The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the applicant is re-requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (see also Rule 66.8(a) PCT).

Re Item Part VIII.

The application does not meet the requirements of Article 6 PCT, because the subject matter of independent claim 1 and of dependent claim 8 is not clear.

In particular, in claim 1 l.2 the tamper resistant module refers to a desired effect. Moreover, the wording of claim 1, l.15-16 is not clear, as it is not specified how the counter can prove the amount of data flow which has been decrypted.

It is not clear which subject matter the applicant intend to protect in dependent claim 8. In order to proceed with the examination, the examiner makes the assumption that the wording of the subject matter of dependent claim 8 means that a command can be transmitted to the tamper resistant module.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/002345

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N7/167

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/47356 A (DIEHL ERIC ; ANDREAUX JEAN PIERRE (FR); CHEVREAU SYLVAIN (FR); THOM) 13 June 2002 (2002-06-13)	1, 2, 6, 8-10
Y	page 3, line 16 - line 29 page 4, line 31 - page 7, line 19 page 8, line 12 - line 20 page 9, line 17 - line 21 -----	3-5, 7
Y	EP 1 263 230 A (VISA INTERNAT SERVICE ASS) 4 December 2002 (2002-12-04) column 9, line 40 - column 10, line 11 column 15, line 46 - column 16, line 19 -----	4, 5
Y	US 2002/048367 A1 (MAILLARD MICHEL) 25 April 2002 (2002-04-25) page 4, paragraph 58 - paragraph 59 page 3, paragraph 36 - page 4, paragraph 52 -----	3, 5, 7



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

3 November 2004

Date of mailing of the international search report

12/11/2004

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/002345

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0247356	A	13-06-2002	FR 2818062 A1	14-06-2002
			AU 2960102 A	18-06-2002
			BR 0115979 A	06-01-2004
			CN 1478350 T	25-02-2004
			WO 0247356 A2	13-06-2002
			EP 1348291 A2	01-10-2003
			HU 0303569 A2	28-01-2004
			JP 2004515972 T	27-05-2004
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			AU 4735001 A	15-10-2001
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			EP 1264484 A2	11-12-2002
			WO 0176251 A2	11-10-2001
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			AU 749106 B2	20-06-2002
			AU 9092698 A	12-04-1999
			BR 9812519 A	25-07-2000
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			CN 1279861 T	10-01-2001
			EP 1018265 A1	12-07-2000
			HR 20000146 A1	31-08-2000
			HU 0004368 A2	28-03-2001
			WO 9916244 A1	01-04-1999
			ID 23893 A	25-05-2000
			JP 2001517901 T	09-10-2001
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			PL 339456 A1	18-12-2000
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			ZA 9808703 A	01-04-1999